1645

Patent
267/3[illegible]US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

RANA, Tariq M. et al.

Serial No.: 09/972,016

Filed: October 4, 2001

For: SITE SPECIFIC PROTEIN MODIFICATION

Group Art Unit: 1645

Examiner: not yet assigned

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicants submit the following documents with this Transmittal Letter.

(1) Information Disclosure Statement;

(2) Form PTO-1449; and

(3) A copy of each cited art (32 references).

LA-2229456.1

CERTIFICATE OF MAILING
(37 C.F.R. §1.8a)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

Rachel Marquez
Name of Person Mailing Paper

January 10, 2002
Date of Deposit

Rachel Marquez
Signature of Person Mailing Paper

The Commissioner is authorized to charge Lyon & Lyon's Deposit Account No. **12-2475** for any fees required under 37 CFR §§ 1.16, 1.17 and 1.445 that are necessitated by this filing.

Respectfully submitted,
LYON & LYON LLP

Dated: 1/9/02

By: Sandra S. Fujiyama
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Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with 37 CFR §§ 1.97 and 1.98, the items identified in this Information Disclosure Statement ("IDS") are brought to the attention of the Office. The items are listed on the attached form PTO-1449 and copies are enclosed for the convenience of the Examiner.

The items identified in this IDS may or may not be "material" pursuant to 37 CFR § 1.56. The submission thereof by Applicant is not to be construed as an admission that any such patent, publication or other information referred to therein is material or considered to be material (37 CFR § 1.97(h)), or even qualifies as "prior art" under 35 USC § 102 with respect to this invention unless specifically designated by Applicant as such.

INFORMATION DISCLOSURE STATEMENT FILING PROVISION:

This IDS is believed to be timely in that it is being submitted under 37 CFR § 1.97(b), that is (1) within three months of the filing date of the application, which is not a continued prosecution application filed under § 1.53(d); or (2) within three months of entry of the national stage as set forth in 37 CFR § 1.491; or (3) before the mailing of a first Office action on the merits; or (4) before the mailing of a first Office action after filing a request for continued examination under § 1.114. Thus, no fee is required.

However, if the undersigned is in error in this regard, Applicant respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and a statement under 37 CFR § 1.97(e) is included below, thus no fee is required.

STATEMENT UNDER 37 CFR § 1.97(e):

No item contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this statement after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this IDS.

PAYMENT AND/OR AUTHORIZATION TO CHARGE FEES:

The Commissioner is authorized to charge any fees required by the filing of these papers, and to credit any overpayment to Lyon & Lyon's Deposit Account No. **12-2475**.

Respectfully submitted,
LYON & LYON LLP

Dated: 1/9/02

By: Sandra S. Fujiyama
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FORM PTO-1449	ATTY. DOCKET NO. 267/302	SERIAL NO. 09/972,016
LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	APPLICANT: RANA, Tariq M et al.	
(Use several sheets if necessary)	FILING DATE: October 4, 2001	GROUP: 1645

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	AA						

FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES	NO
	AB							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
	AC	Berkhout et al., "Tat trans-activates the Human Immunodeficiency Virus Through a Nascent RNA Target," Cell, Vol. 59, (10/20/1989) pp. 273-282.
	AD	Calnan et al., "Analysis of arginine-rich peptides from the HIV Tat protein reveals unusual features of RNA–protein recognition," Genes Dev., 5, (1991) pp. 201-210
	AE	Calnan et al., "Arginine-Mediated RNA Recognition: The Arginine Fork," Science, Vol. 252, (5/24/1991) pp. 1167-1171
	AF	Churcher et al., "High Affinity Binding of TAR RNA by the Human Immunodeficiency Virus Type-1 *tat* Protein Requires Base-pairs in the RNA Stem and Amino Acid Residues Flanking the Base Region," J. Mol. Biol., Vol. 230, No. 1, (3/5/1993) pp. 90-110
	AG	Clegg, "Fluorescence resonance energy transfer and nucleic acids," Methods Enzymol., Vol. 211, (1992) pp. 353-88
	AH	Cornish et al., "Site-Specific Protein Modification Using a Ketone Handle," J. Am. Chem. Soc., Vol. 118, (1996) pp. 8150-8151.
	AI	Cordingley et al., "Sequence-specific interaction of Tat protein and Tat peptides with the transactivation-responsive sequence element of human immunodeficiency virus type 1 *in vitro*," Proc. Natl. Acad. Sci., Vol. 87, No. 22, (11/1990) pp. 8985-8989
	AJ	Cullen, "HIV-1 auxiliary proteins: making connections in a dying cell," Cell, Vol. 93, No. 5, (5/29/1998) pp. 685-692.
	AK	Dingwall et al., "Human immunodeficiency virus 1 tat protein binds trans-activation-responsive region (TAR) RNA *in vitro,"* Proc. Natl. Acad. Sci., Vol. 86, No. 18, (9/1989) pp. 6925-6929
	AL	Dingwall et al., "HIV-1 *tat* protein stimulations transcription by binding to a U-rich bulge in the stem of the TAR RNA Structure," EMBO J., Vol. 9, No. 12, (1990) pp. 4145-4153
	AM	Dong et al., "Synthesis and biological activities of fluorescent acridine-containing HIV-1 nucleocapsid proteins for investigation of nucleic acid-NCp7 interactions," J. Peptide Res., Vol. 50, No. 1, (7/1997), pp. 269-278.
	AN	Falchetto et al., "The Plasma Membrane Ca^{2+} Pump Contains a Site That Interacts with Its Calmodulin-binding Domain," J. Biol. Chem., Vol. 266, No. 5, (2/15/1991) pp. 2930-2936.
	AO	Geoghegan et al., "Site-Directed Conjugation of Nonpeptide Groups to Peptides and Proteins via Periodate Oxidation of a 2-Amino Alcohol. Application to Modification at N-Terminal Serine," Bioconjugate Chem. Vol. 3, No. 2, (3-4/1992) pp. 138-146.
	AP	Huq et al., "Probing the proximity of the core domain of an HIV-1 Tat fragment in a Tat–TAR complex by affinity cleaving," Biochemistry, Vol. 36, (1997) pp. 12592-12599

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EXAMINER:	DATE CONSIDERED:

EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant

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	FILING DATE: October 4, 2001	GROUP: 1645

	AQ	Jakobovits et al. "A discrete Element 3' of Human Immunodeficiency Virus 1 (HIV-1) and HIV-2 mRNA Initiation Sites Mediates Transcriptional Activation by an HIV *trans* Activator," Mol. Cell. Biol., Vol. 8, No. 6, (5/1988) pp. 2555-2561
	AR	Jones et al., "Control of RNA Initiation and Elongation at the HIV-1 Promoter," Annu. Rev. Biochem., Vol. 63, (1994) pp. 717-743.
	AS	Jones, "Taking a new TAK on Tat transactivation," Genes & Dev., Vol. 11, No. 20, (10/15/1997), pp. 2593-2599.
	AT	King et al., "A cleavage method which minimizes side reactions following Fmoc solid phase peptide synthesis," Int J. Peptide Protein Res., Vol. 36, No. 3, (9/1990) pp. 255-266.
	AU	Lohse et al., "Fluorescein-Conjugated Lysine Monomers for Solid Phase Synthesis of Fluorescent Peptides and PNA Oligomers," Bioconjugate Chem., Vol. 8, No. 4, (7-8/1997) pp. 503-509.
	AV	Long et al., "Interaction of human immunodeficiency virus type 1 Tat-derived peptides with TAR RNA," Biochemistry, Vol. 34, No. 27, (7/11/1995) pp. 8885-8895
	AW	Means et al., "Chemical modification of proteins: history and application," Bioconjugate Chem., Vol. 1, No. 1, (1-2/1990) pp. 2-12
	AX	Muesing et al., "Regulation of mRNA Accumulation by a Human Immunodeficiency Virus *Trans*-Activator Protein," Cell, Vol. 48, No. 4, (2/27/1987) pp. 691-701
	AY	Muller et al., "Interaction of fluorescently labeled dideoxynucleotides with HIV-1 reverse transcriptase," Biochemistry, Vol. 30, No. 15, (4/16/1991) pp. 3709-3715
	AZ	Ping et al., "Dynamics of RNA–protein interactions in the HIV-1 Rev-RRE complex visualized by 6-thioguanosine-mediated photocrosslinking," RNA, Vol. 3, No. 8, (8/1997) pp. 850-860
	BA	Ploug et al., "Photoaffinity Labeling of the Human Receptor for Urokinase-Type Plasminogen Activator Using a Decapeptide Antagonist. Evidence for a Composite Ligand-Binding Site and a Short Interdomain Separation," Biochemistry, Vol. 37, (1998) pp. 3612-3622.
	BB	Ranganathan et al., "Protein Engineering: Design of Single-Residue Anchored Metal-Uptake Systems," Inorg. Chem., Vol. 38, No. 5, (3/8/1999) pp. 1019-1023.
	BC	Rosen et al., "The Location of *Cis*-Acting Regulatory Sequences in the Human T Cell Lymphotropic Virus Type III (HTLV-III/LAV) Long Terminal Repeat," Cell, Vol. 41, No. 3, (7/1985) pp. 813-823
	BD	Shah et al., "Synthesis of uridine phosphoramidite analogs: Reagents for site-specific incorporation of photoreactive sites into RNA sequences," Bioconjugate Chem., Vol. 5, (1994), pp. 508-512
	BE	Tinoco et al., "RNA folding," Nucl. Acids & Mol., Biol. Vol. 4, (1990) pp. 205-226.
	BF	Wang et al., "RNA conformation in the Tat–TAR complex determined by site-specific photo-cross-linking," Biochemistry, Vol. 35, No. 28, (5/21/1996) pp. 6491-6499
	BG	Weeks et al., "RNA Recognition by Tat-Derived Peptides: Interaction in the Major Groove?," Cell, Vol. 66, No. 3, (8/9/1991) pp. 577-588
	BH	Yang et al., "Fluorescence resonance energy transfer as a probe of DNA structure and function," Methods Enzymol. Vol. 278, No. 20, (1997) pp. 417-444

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